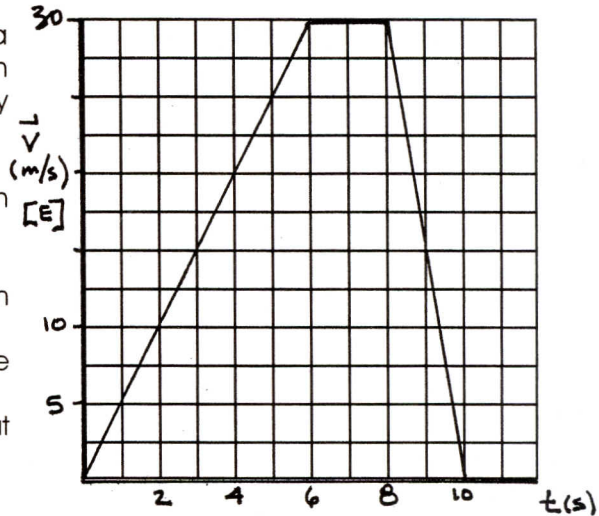
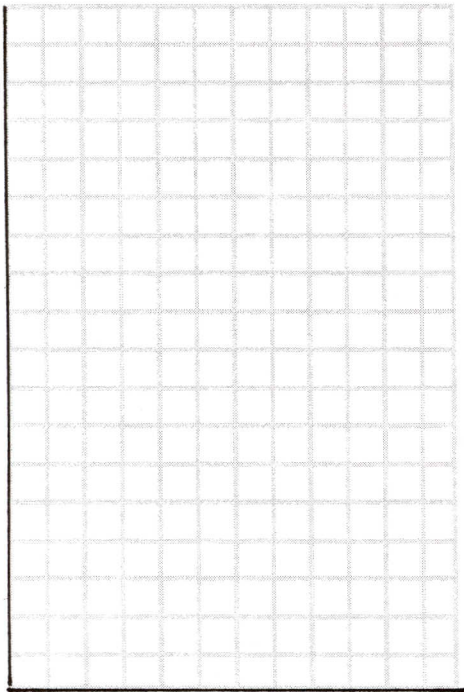


## MORE ON VELOCITY....

1. The cheetah is the fastest land animal. It can reach a speed of 112 km/h ( $\sim 31$  m/s) in short sprints, but it can only maintain this speed over small time intervals. Study the velocity-time graph for a cheetah chasing its prey.



- What is the average acceleration of the cheetah during the first 6.0 s?
- What is the cheetah doing over the next 2.0 s?
- Determine the average acceleration of the cheetah during the final 2.0 s.
- When does the cheetah change direction during the chase?
- Plot a position-time graph below, assuming that at  $t=0$  s the cheetah was at the reference point.



- Read pp. 24-26. Do p. 26 #2 and the Try This Activity, parts (a) and (b)
- Read pp. 29-30. Do p. 30 #10
- Given the following position-time data, determine the acceleration of the object.

Position, (m) [down]	Time (s)
0	0.0
2	1.0
8	2.0
18	3.0
32	4.0
50	5.0
72	6.0

For question 4

